

# Workshop on Detectors for Synchrotron Research

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Courtyard Marriott Embassy Row, "General Scott" Room  
Washington, DC, October 30-31, 2000

## MONDAY, OCTOBER 30, 2000

8:00 Registration, Continental Breakfast served

8:30 Introduction - Al Thompson (LBNL)

8:45 DOE perspective – to be confirmed

### Morning Sessions: Requirements for Improved Detectors in Different Research Areas

#### **Session Chairman - Peter Siddons (NSLS)**

9:00 Spectroscopy and atomic structure determinations with soft and hard x-rays

Chuck Fadley, UC Davis/LBNL

9:20 Materials science characterization using diffraction techniques - Sean Brennan, SSRL

9:40 Studying the heterogeneous world using x-ray microscopy - Mark Rivers, Chicago

10:00 Structural measurements using EXAFS - Steve Heald, PNCC Cat at APS

10:20 Coffee

#### **Session Chairman – Grant Bunker (APS)**

10:40 Ultra fast dynamics in solids - Roger Falcone, UCB

11:00 Science and detector requirements for fourth generation synchrotrons - John Arthur, SSRL

11:20 Infrared research - Larry Carr, NSLS

11:40 Macromolecular crystallography - Bob Sweet, BNL

12:00 Characterization using x-ray scattering and fluorescence - Chi Chang Kao, NSLS

12:20 Lunch

### Afternoon Sessions: Advanced Detectors for Synchrotron Research

#### **Session Chairman - Franco Manfredi, University of Pavia**

1:00 Overview of detector research areas - Rob Lewis, Daresbury

1:30 Gas detectors - Graham Smith, BNL

1:50 High energy resolution superconducting bolometer arrays - Kent Irwin, NIST

2:10 CCD Detectors for Crystallography - Steve Naday, APS

2:30 Coffee

#### **Session Chairman – Veljko Radeka (BNL)**

##### Silicon Pixel Detectors for Crystallography and Other Applications

2:50 Analog systems - Sol Gruner (CHESS)

3:10 Digital systems - Christian Broennimann (Swiss Light Source)

3:30 Integrated systems - Jacques Millaud (LBNL)

3:50 High Energy/Synchrotron Perspective - Erik Heijne (CERN)

##### Other detectors

4:10 Multi-element Si(Li), Ge and CdTe detectors for EXAFS - Gareth Derbyshire

4:25 Silicon drift detectors - Pavel Rehak (BNL)

4:40 Avalanche photo diodes - Alfred Baron (SPRING 8)

4:55 Sub-picosecond streak cameras – Jean-Claude Kieffer (INRS Univ du Quebec)

5:10 Reports on detector needs by synchrotron representatives (5-10 min/speaker)

5:25 Formation of working groups

7:00 - 9:00 - Dinner

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**TUESDAY, OCTOBER 31, 2000**

**8:15** Continental Breakfast

## **Morning Session: Discussion and Writing of Working Group Recommendations**

**Session Chairman - Al Thompson**

**8:45** Charge to Working Groups

**9:00** First Meeting of Working Groups

**10:30** Coffee/cookies Available

**10:45** Working Groups continue writing their contribution to roadmap

**12:00** Lunch

## **Afternoon Session "Refining and Discussion of SR Detector Road Map Report"**

**Session Chairman - Al Thompson**

**1:00** Brief summary of working group progress - 10 min/group

**2:00** Refining of contributions by Working Groups

**3:00** Coffee

**4:00** Workshop closeout

**4:30** End of workshop

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